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			Application Number	10/699,9694	
INFO	DRMATION	DISCLOSURE	Filing Date	November 4, 2003	
STA	TEMENT B'	Y APPLICANT	First Named Inventor	Greg Olson	
			Art Unit	3763	
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Sheet	1	of 2	Attorney Docket Number	12013/50701	

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**U.S. PATENT DOCUMENTS** Name of Patentee or Applicant of Cited Document Document Number Pages, Columns, Lines, Where Relevant Publication Date Cite No.1 MM-DD-YYYY Passages or Relevant Initials Number - Kind Code<sup>2</sup> (if known) Figures Appear /CSW US-2002/049495 04/25/02 Kutryk et al. /CSW/ US-2003/104028 06/05/03 Hossainy et al. US-US-US-US-US-US-US-US-US-US-US-US-US-US: US-US-US-US-

	FOREIGN PATENT DOCUMENTS					
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TCSWI		WO 02/080996 A1	10/17/02			
/CSW/		WO 99/64085	12/16/99			
/CSW/		WO 03/092763 A1	11/13/03			

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/CSW/		LOBENBERG R: "Smart materials:applications of nanotechnology in drug delivery and drug targeting" IEEE, 20 July 2003 (2003-07-20), pages 82-83, XP010650299.	
/CSW/		JAIN K K: "NANODIAGNOSTICS: APPLICATION OF NANOTECHNOLOGY IN MOLECULAR DIAGNOSTICS" EXPERT REVIEW OF MOLECULAR DIAGNOSTICS, FUTURE DRUGS, LONDON, GB, vol.3, no. 2, 20 July 2003 (2003-07-20), pages 1453-161, XP008038849.	
/CSW/		JORDAN A: "Nanotechnology - A new concept for diagnosis and therapy of malignant tumors" ONKOLOGE 2001 GERMANY, vol. 7, no. 10, 2001, pages 1073-1081, XP00231776.	
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U.S. PATENT DOCUMENTS						
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	l	Number - Kind Code <sup>2</sup> (if known)			Figures Appear	
/CSW/		US-2003/0055407 A1	03/20/2003	Walik		
/CSW/		US- 6,090,363	07/18/2000	Green et al.		
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<sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

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STATEMENT BY APPLICANT	First Named Inventor	Greg Olson		
	Group Art Unit	Unassigned		
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Sheet 2 of 5	Attorney Docket Number	12013/50701		

Examiner Initials *	Cite No.¹  Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issur number(s), publisher, city and/or country where published.		Τ²
/CSW/		Baughman et al., "Carbon Nanotubesthe Route Toward Applications," Science, Vol. 297, 08/02/02; pp. 787-792.	
		"Carbon Nanotube Bucky Paper Scaffold for Retinal Cell Transplantation," http://ettc.usc.edu/ames/nano/TOA-AME_BuckyPaper6.pdf	
		Antipov et al., "Sustained Release Properties of Polyelectrolyte Multilayer Capsules," J. Phys. Chem. B 2001, 105, 2281-2284.	
		Qiu et al., "Studies on the Drug Release Properties of Polysaccharide Multilayers Encapsulated Ibuprofen Microparticles," Langmuir 2001, 17, 5375-5380.	
	-	Decher et al., "Multilayer Thin Films," ISBN 3527304401, Chap. 13.2.1.2.	
		Hird et al., "Supramolecular Structures of Novel Carbohydrate-Based Phospholipids," J. Am. Chem. Soc., 2000, 8097-8098.	
		Brannon-Peppas, "Polymers in Controlled Drug Delivery," Medical Plastics and Biomaterials Magazine, originally published November 1997.	
		Byrne et al., "Use of Commercial Porous Ceramic Particles for Sustained Drug Delivery," International Journal of Pharmaceutics 246 (2002) 61-73.	
		Joschek et al., "Chemical and Physicochemical Characterization of Porous Hydroxyapatite Ceramics Made of Natural Bone," Biomaterials 21 (2000) 1645-1658.	
$\overline{\mathbf{V}}$		Zhang et al., "Crystallization and Microstructure Analysis of Calcium Phosphate-Based Glass Ceramics for Biomedical Applications," Journal of Non-Crystalline Solids 272 (2000) 14-21.	
/CSW/		Ausman et al., "Organic Solvent Dispersions of Single-Walled Carbon Nanotubes: Toward Solutions of Pristine Nanotubes," J. Phys. Chem. B, 2000 104, 8911-8915.	

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Substitute for form 1449A/PTO Complete if Known **Application Number** Unassigned INFORMATION DISCLOSURE Filing Date Herewith STATEMENT BY APPLICANT **Greg Olson** First Named Inventor **Group Art Unit** Unassigned (use as many sheets as necessary) **Examiner Name** Unassigned Sheet of | 5 12013/50701 Attorney Docket Number

Examiner Initials *	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	
/CSW/		Sreekumar, et al., "Single-Wall Carbon Nanotube Films," Chem. Mater. 2003, 15, 175-178.	
		Adriance-Mejia et al., "Alternative Formulations for the Anti-cancer Drug Paclitaxel (Taxol)," http://otc.isu.edu/~ndas/Term%20Papers%202002/Paclitaxel%20Formulations.pdf	
		Spinks et al., "Pneumatic Actuator Response from Carbon Nanotube Sheets," presented on the MRS Fall meeting 2001.	
		Liu et al., "Fullerene Pipes," Science, 280 (1998), 1253-1256.	
		Bos, "Albumin-Heparin Matrices Loaded with Growth Factor as Substrates For Endothelial Cell Seeding," Thesis - University of Twente, Enschede, The Netherlands.	
		Georgakilas et al., "Organic Functionalization of Carbon Nanotubes," J. Am. Chem. Soc. 124 (5) (2002), 760-761.	
		Chen et al., "Plasma Activation of Carbon Nanotubes for Chemical Modification," J. Phys. Chem. B 2001, 105, 618-622.	
		Pantarotto et al., "Synthesis, Structural Characterization, and Immunological Properties of Carbon Nanotubes Functionalized with Peptides," J. Am. Chem. Soc. 2003, 125, 6160-6164.	
		Dettlaff-Weglikowska et al., "Chemical Functionalization of Single Walled Carbon Nanotubes," Current Applied Physics 2 (2002) 497-501.	
$\overline{\mathbf{V}}$		Bahr et al., "Functionalization of Carbon Nanotubes by Electrochemical Reduction of Aryl Diazonium Salts: A Bucky Paper Electrode," J. Am. Chem. Soc. 2001, 123, 6536-6542.	
/CSW/		Chen, et al, "Cyclodextrin-Mediated Soft Cutting of Single-Walled Carbon Nanotubes," J. Am. Chem. Soc. 2001, 123, 6201-6202.	

Examiner Signature /Catherine S. Williams/ (09/05/2007) Date Considered
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	<del></del>	OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS	_
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/CSW/		Chen et al., "Solution Properties of Single-Walled Carbon Nanotubes," Science, 1998, 282, 95-98.	
		Chen et al, "Dissolution of Full-Length Single-Walled Carbon Nanotubes," J. Phys. Chem. B 2001, 105, 2525-2528.	
		Sun et al., "Soluble Dendron-Functionalized Carbon Nanotubes: Preparation, Characterization, and Properties," Chem. Mater. 2001, 13, 2864-2869.	
		Bahr et al., "Dissolution of Small Diameter Single-Wall Carbon Nanotubes in Organic Solvents," Chem. Commun. 2001, 193-194.	
		Wong et al., "Covalently-Functionalized Single-Walled Carbon Nanotube Probe Tips for Chemical Force Microscopy," J. Am. Chem. Soc., 1998, 120, 8557-8558.	
		Holzinger et al., "Sidewall Functionalization of Carbon Nanotubes," Angew. Chem. Int. Ed., 2001, 40, 4002-4005.	
		Zhao et al., "Chromatographic Purification and Properties of Soluble Single-Walled Carbon Nanotubes," J. Am. Chem. Soc., 2001, 123, 11673-11677.	
		Chen et al., "Room-Temperature Assembly of Directional Carbon Nanotube Strings," J. Am. Chem. Soc., 2002, 124, 758-759.	
		Diehl et al., "Self-Assembled, Deterministic Carbon Nanotube Wiring Networks," Angew Chem. Int. Ed., 2002, 41, 353-356.	
1		Krasheninnikov et al., "Ion-Irradiation-Induced Welding of Carbon Nanotubes," Physical Review B 66, 245403 (2002).	
/CSW/		Fisher et al., "Carbon Nanotubes Literature Review," Department of Mechanical Engineering, Northwestern University, February 21, 2001.	

Examiner Signature	/Catherine S. Williams/ (09/05/2007)	Date Considered	

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		OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS		
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/CSW/		Final Report, Nanotechnology Workshop: From the Laboratory to New Commercial Frontiers, Rice University, Houston, Texas, May 23, 2002.		
		Henry, "Special Delivery - Alternative Methods for Delivering Drugs Improve Performance, Convenience, and Patient Compliance," Chemical & Engineering News, Vol. 78, No. 38, 9/18/2000, pp. 49-65.		
		"Antibody Coated Stent A Breakthrough in Cardiovascular Treatment," ScienceDaily New Release, 5/22/2003.		
$\overline{\mathbf{V}}$		Klein-Soyer et al., "CD9 Participates in Endothelial Cell Migration During In Vitro Wound Repair," Arterioscler Thromb Vasc Biol., February 2000, pp. 360-369 (http://www.atvbaha.org)		
/CSW/		Hertel et al., "Manipulation of Individual Carbon Nanotubes and Their Interaction with Surfaces," J. Phys. Chem. B 1998, 102, 910-915.		
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